## HIGH-DENSITY OPTICAL PICKUP FOR ROTATING MEDIA

## Abstract of Disclosure

An optical pickup is described with an electronically adjustable beam spot size for reading optical media. Two proximal light sources are impinged on a selected track of the media and the reflected light is registered by photodetector arrays. The electrical signal generated from the leading detector is delayed, based on a distance between beams and the speed of the media, to achieve a desired amount of temporal coincidence with the electrical signal associated with the lagging beam. The electrical signals are combined, such as in a multiplier circuit, to create a third electrical signal whose response to a data bit can be adjusted to a shorter duration than the responses from either first or second beams. Therefore, the effective spot size may be electronically controlled, wherein light sources of longer wavelengths may be utilized, and optical data storage systems may be configured for reading media having different optical characteristics.

## Figures